



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,975	02/14/2001	Samuel Dacke Harkness IV	146712001300	9533

25227            7590            09/02/2003  
**MORRISON & FOERSTER LLP**  
1650 TYSONS BOULEVARD  
SUITE 300  
MCLEAN, VA 22102

EXAMINER
UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
1773	

DATE MAILED: 09/02/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/781,975	HARKNESS ET AL.
	Examiner Nikolas J. Uhlir	Art Unit 1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 20 June 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1,2,6-12 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-2, 6-12 and 16-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a)  The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. This office action is in response to the amendment/arguments dated 6/20/03. The applicant's arguments and amendments have been considered but are not persuasive. Currently, claims 1-2, 6-12 and 16-20 are pending.

***Claim Rejections - 35 USC § 112***

2. Claims 1-2, 6-12 and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the instant case, the requirement of a "non-oxidized" Cr-containing first underlayer is a negative limitation that does not have basis in the original disclosure. "Any negative limitation or exclusionary proviso must have basis in the original disclosure." "The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement" MPEP 2173.05(i).

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1773

4. Claims 1-2, 6-7, 9, 11-12, 16-17, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanahashi et al. (US6001447) in view of Suzuki et al. (US5143794) and Bertero et al. (US6150015).

5. This rejection is maintained as set forth in the office action dated 3/20/03 (paper #10).

6. Claims 8, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanahashi as modified by Bertero and Suzuki as applied to claims 1 and 11 above, and further in view of Ivett et al. (US US5298324).

7. This rejection is maintained as set forth in the office action dated 3/20/03 (paper #10).

### ***Response to Arguments***

8. Applicants arguments dated 6/20/03 have been carefully considered but are not persuasive. In the instant case, with respect to the rejection of claims 1-2, 6-7, 9, 11-12 , 16-17 and 19-20 under 35 U.S.C 103(a) as obvious over Tanahashi in view of Suzuki and Bertero, the applicant's presented the following arguments (summarized):

- The applicants have demonstrated two unexpected results resulting from the combination of an oxidized seedlayer with a non-oxidized underlayer, those results being the improvement of the hcp-bcc interface corrosion resistance, and reduced grain size. Persons of ordinary skill in the art did not recognize the combination of a non-oxidized underlayer and an oxidized seedlayer or the benefits of such a combination. Applicants argue that due to the multitude of reasons for corrosion, persons of ordinary skill would have no technical reason to conclude that a non-oxidized Cr containing layer between an oxidized seedlayer and an hcp layer would solve oxygen corrosion at the interface of the hcp layer. Further, one of ordinary skill would not have recognized that a non-oxidized underlayer performs as a corrosion inhibitor in the environment in which it was located. Therefore it is just hypothetical to assume that a person of ordinary skill would have selected the combination of a non-oxidized underlayer and an oxidized seedlayer. Thus, there is no suggestion or motivation in the cited references to combine an oxidized seedlayer directly adjacent the substrate with a non-oxidized oxidized underlayer as recited in the claims. Applicant cites "The need for specificity pervades this authority... an particular findings [not just for any reason] must be made as to the reason the skilled artisan, *with no knowledge of the claimed invention*, would have selected these components for combination in the manner claimed." The applicant further submits that even had the examiner established a *prima facie*

Art Unit: 1773

case of obviousness, this case would be overcome by applicant's unexpected improvements in grain size distribution and corrosion resistance. "Consistent with the rule that all evidence of non-obviousness must be considered when assessing patentability, the PTO must consider comparative data in the specification in determining whether the claimed invention provides unexpected results." *In re Soni* 54 F.2d 746, 34 USPQ 2d 1684 (Fed. Cir. 1995).

9. This argument is unpersuasive. With respect to the applicants argument that one of ordinary skill in the art would have no technical reason or motivation to combine the cited references in the manner asserted by the examiner so as to arrive at the instantly claimed invention, the examiner respectfully disagrees. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In the instant case, there is clear motivation in the prior art to oxidize of the Cr seedlayer of Taniyama, the purpose of which would be to reduce the grain size and noise of the recording medium. The oxidation of Cr layers for this purpose is explicitly taught in Suzuki (column 12, lines 19-50), and the motivation for doing so is reinforced by Bertero (Column 14, lines 18-35). Thus, one of ordinary skill in the art, having no knowledge of the instant invention, would have had motivation (albeit different from the instant invention) to oxidize the Cr seedlayer of Taniyama via the method disclosed in Suzuki with a reasonable expectation of success. The examiner notes that oxidizing the seedlayer of Taniyama results in a structure that is identical to that of the instant invention. Thus, applicant's argument with respect to the motivation of one of ordinary skill in the art is unpersuasive.

10. Regarding the applicant's assertion that even if the examiner established a prima facie case of obviousness, this prima facie case would be overcome by the applicant's

unexpected results. This argument is unpersuasive, as the applicant has not compared the instant invention to the closest prior art, namely the combination of Taniyama with Bertero and Suzuki. The examiner agrees that the applicant has shown that the corrosion resistance and grain size distribution of a recording medium is improved by the oxidizing a seedlayer that is formed directly adjacent the substrate and below a non-oxidized underlayer, and thus is improved over that of the structure shown by Taniyama alone. However, the combination of Taniyama with Bertero and Suzuki results in an identical structure as that of the instant invention. The applicant's comparison data in the specification relates only to the improvements exhibited by the instant invention as compared to that of the single reference of Taniyama, and thus does not show that the combination of Taniyama with Bertero and Suzuki would not necessarily result in the applicants asserted unexpected results. Given that the prior art provides clear motivation to form the structure claimed by the applicant, absent a showing that the applicant's unexpected results are not necessarily met by simply forming the requisite structure, the applicant's argument with respect to unexpected results cannot be considered to be persuasive.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1773

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhlir whose telephone number is 703-305-0179. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 703-308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0389.

nju  
nju

  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700